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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,930

06/20/2006

Toshiyuki Ikeda

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4840

24978 7590 09/15/2009  
GREER, BURNS & CRAIN  
300 S WACKER DR  
25TH FLOOR  
CHICAGO, IL 60606

EXAMINER

JOHNSTONE, ADRIENNE C

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

09/15/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,930	<b>Applicant(s)</b> IKEDA ET AL.	
	<b>Examiner</b> Adrienne C. Johnstone	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060620</u> .                                                | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of species s, claims 1-8 in the reply filed on June 29, 2009 is acknowledged.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4/1-3 - 8/1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis in each of claims 1-3 for the term "the tube" (at least one tube in claim 1, a plurality of tubes in claims 2-3). One way to overcome this rejection would be to change "the tube" to -- each tube -- in claims 4/1-3 - 8/1-3.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 4/1-3, and 6-8/1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Svedhem (6,309,026 B1).

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See col. 3 line 31 - col. 6 line 33: assembly of pneumatic tire 2, wheel rim 3, and quarter-wave resonators provided with the tire or the wheel inside the tire cavity (plurality of tubes each with one end closed and an opening to the cavity portion, each tube having a length of either 100% of quarter of cavity resonance wavelength or somewhat shorter or longer than the length of 100% of quarter cavity resonance wavelength). As to claims 2 and 3, each pair of tubes has opening portions facing each other across a rotational axis of the tire (note that the current claim language does not exclude the presence of the second pair of tubes) for a claim 3 angle of substantially zero. As to claims 6/1-3, porous sound-absorbing material 19, 32, 56, 57 fills the closed end.

7. Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent Application 199 20 681 A1.

See abstract, figures, translation: assembly of pneumatic tire 3, wheel rim 2, and quarter-wave resonators in the form of two groups of tubular anti-noise elements 4 having open tube ends 13 in one location along the tire circumference and closed tube ends 13' circumferentially spaced from each other, the open ends of the two groups facing each other across a rotational axis of the tire for a claim 3 angle of substantially zero. As to claims 5/1-3, the total cross-sectional area of the tubes in a group equals approximately  $1/3$  of the cross-sectional area of the tire cavity and thus each of the four tubes in the exemplary group has a cross-sectional area of approximately  $1/12 = 8\%$  of the tire cavity cross-sectional area. As to claims 7/1-3 and 8/1-3, the tubular anti-noise elements 4 can be provided with the wheel (Figures 2-3) or the tire (Figures 4-5) or both (description translation last paragraph).

***Allowable Subject Matter***

8. Favorable consideration would be given to claim 3 limited to the elected species s.

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***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references anticipate or render obvious at least claim 1 but are considered to be no more pertinent to the instant claims than the prior art already cited by the examiner:

Flament et al. (6,516,849 B2), Published PCT Application WO 02/087904 A1, European Patent Application 0 965 977 A2, and Japanese Patent Application 2004-330862 A.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrienne C. Johnstone whose telephone number is (571) 272-1218. The examiner can normally be reached on Monday-Friday, 1:00PM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrienne C. Johnstone  
Primary Examiner  
Art Unit 1791

Adrienne Johnstone

/Adrienne C. Johnstone/

September 13, 2009